

REMARKS

The office action of November 24, 2009, has been carefully considered.

It is noted that the claim 3 is objected to for containing various informalities.

Claims 1-3 and 5-10 are rejected under 35 U.S.C. 103(a) over the patent to Hanazaki et al. in view of the patent to Weyer et al.

In view of the Examiner's objection to and rejection of the claims, applicant has amended claims 1 and 3.

With the amendment to claim 3, it is respectfully submitted that the objection to this claim is overcome and should be withdrawn.

It is respectfully submitted that the claims presently on file differ essentially and in an unobvious, highly advantageous manner from the methods and constructions disclosed in the references.

Turning now to the references, and particularly to the patent to Hanazaki et al., it can be seen that this patent discloses a continuous casting method and apparatus. Hanazaki et al. do not teach rotationally driven rollers within the roller segment, as in the presently claimed invention.

The patent to Weyer et al. also discloses a continuous casting method and apparatus. As with Hanazaki et al., Weyer et al. do not teach rotationally driven rollers within the roller segment, as in the presently claimed invention. In Weyer et al. the rollers 3 are not rotationally driven, but instead are driven toward and away from the billet by the cylinder units 8-11.

The Examiner combined Weyer et al. and Hanazaki et al. in determining that claims 1-3 and 5-10 would be unpatentable over such a combination. The present invention arranges rotationally driven rollers within the roller segment, which provides a positive influence on the path of forces in the roller segment. In particular, when the roller segments have a specific angular setting, there is an intensive transfer of force onto the cast strand or the cold bar (see the paragraph beginning on line 15 of page 3 of the specification of the present application).

With swiveling roller segments as recited in the present invention, the provision of integrated driven rollers allows an individual adjustment of the force and pressure states when the roller segments are switched from a position-controlled operation to a pressure-controlled operation. With the rotationally driven rollers installed on the segment entrance side and/or the segment exit side, as recited in the claims now on file, there is an optimal dynamic positioning of the piston-cylinder units, whereby the force or pressure states corresponding to the setting of the roller segments are transferred individually to the cast strand.

In contrast to the presently claimed invention, neither Hanazaki et al. or Weyer et al., nor their combination teach rotationhally driven rollers installed within the roller segment. Thus, one skilled in the art would not find it obvious from this combination of references to provide rotationally driven rollers in a roller segment so as to support the force or pressure of the piston-cylinder units in order to prevent damage to the roller segments due to the action of excessive forces. The combination of references does not teach the presently claimed invention.

In view of these considerations it is respectfully submitted

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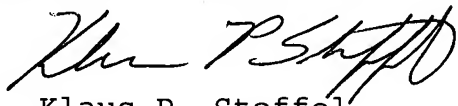
that the rejection of claims 1-3 and 5-10 under 35 U.S.C. 103(a) over the above-discussed references is overcome and should be withdrawn.

Reconsideration and allowance of the present application are respectfully requested.

Any additional fees or charges required at this time in connection with this application may be charged to Patent and Trademark Office Deposit Account No. 11-1835.

Respectfully submitted,

By

  
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Dated: February 24, 2010

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, PO Box 1450 Alexandria, VA 22313-1450, on February 24, 2010.

By:

  
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Date: February 24, 2010